

CLAIMS:

1. A method for obtaining transformed or genetically modified plant seed, the method including contacting germinating plant seed with a wetting agent or surfactant and an *Agrobacterium* strain to transform or genetically modify the plant seed.

2. A method as claimed in claim 1, in which the wetting agent or surfactant is a non-oil based wetting agent or surfactant.

3. A method as claimed in claim 1 or claim 2, in which the wetting agent or surfactant includes a polyether polymethyl siloxane copolymer.

4. A method as claimed in any one of the preceding claims, in which the *Agrobacterium* strain and the wetting agent or surfactant are in the form of an admixture, the wetting agent or surfactant and the *Agrobacterium* strain being present in the admixture in a mass ratio of the wetting agent or surfactant: *Agrobacterium* strain of between 1:99 and 1:10000.

5. A method as claimed in any one of the preceding claims, in which the germinating plant seed are subjected to vacuum infiltration while they are being contacted with the wetting agent or surfactant and the *Agrobacterium* strain.

6. A method as claimed in claim 5, in which the germinating plant seed are subjected to vacuum infiltration for a period of between 5 minutes and 40 minutes, at a pressure of between 150 Pa (a) and 750 Pa (a).

7. A method as claimed in any one of the preceding claims, in which the germinating plant seed are contacted with the wetting agent or surfactant and

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the *Agrobacterium* strain for a period of between 2 hours and 48 hours, at a temperature of between 15 °C and 35 °C.

8. A method as claimed in any one of the preceding claims, in which the *Agrobacterium* strain is *Agrobacterium tumefaciens*.

5 9. A method as claimed in any one of the preceding claims, in which the *Agrobacterium* strain includes a foreign gene which includes appropriate regulatory sequences so as to be expressed in the cells of a plant which is cultivated from the transformed or genetically modified plant seed.

10 10. A method as claimed in claim 9, in which the foreign gene confers at least one of disease resistance and drought resistance to the plant which is cultivated from the transformed or genetically modified plant seed.

11. A method as claimed in any one of the preceding claims, in which the *Agrobacterium* strain includes a plasmid comprising vector pBI121.

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12. A method as claimed in claim 9 or claim 10, in which the *Agrobacterium* strain includes a plasmid which includes both said foreign gene and a selection agent resistance gene, the selection agent resistance gene also including appropriate regulatory sequences so as to be expressed in the cells of the plant which is cultivated from the transformed or genetically modified plant seed.

20 13. A method as claimed in claim 12, in which the selection agent resistance gene codes for antibiotic resistance, thus imparting resistance to an antibiotic selection agent to the plant which is cultivated from the transformed or genetically modified plant seed.

14. A method as claimed in claim 13, in which the antibiotic selection agent is selected from the group consisting of at least one of kanamycin and rifampicin, and in which the selection agent resistance gene is a GUS-intron gene.

5 15. A method as claimed in any and of the preceding claims, in which the plant seed is from the family *leguminosae*.

16. A method as claimed in claim 15, in which the plant seed is soybean seed.

17. A method as claimed in claim 15, in which the plant seed is lupin seed.

10 18. A method as claimed in any one of the preceding claims, which includes germinating plant seed at a temperature of between 22 °C and 32 °C, for a period of between 2 days and 5 days, before contacting the germinating plant seed with the wetting agent or surfactant and the *Agrobacterium* strain.

15 19. A transformed or genetically modified plant seed produced by the method as claimed in any one of claims 1 to 18 inclusive.

20. A transformed or genetically modified plant cultivated from the plant seed as claimed in claim 19.

21. A plant seed produced by the transformed or genetically modified plant as claimed in claim 20.

20 22. A plant which is the progeny of a transformed or genetically modified plant as claimed in claim 20.

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23. A method for obtaining transformed or genetically modified plant seed as claimed in claim 1, substantially as herein described and illustrated.

24. A new method for obtaining transformed or genetically modified plant seed, a new plant seed, or a new plant, substantially as herein described.

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A new method for obtaining transformed or genetically modified plant seed, a new plant seed, or a new plant, substantially as herein described.